SIEMENS

Data sheet

6ES7145-4FF00-0AB0



SIMATIC DP, Electronic modules for ET 200 PRO 4 AO U High Feature, +-10 V; 0...10V; 1...5V, Channel diagnostics; incl. bus module, Connection module IO 6ES7194-4..00-0AA0 order separately

Figure similar

Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes; against destruction
Input current	
from supply voltage 1L+, max.	65 mA
from backplane bus 3.3 V DC, max.	10 mA
Actuator supply	
Number of outputs	4
Short-circuit protection	Yes; per module
Output current	
• up to 55 °C, max.	1 A
Power loss	
Power loss, typ.	1.7 W
Address area	
Address space per module	
 Address space per module, max. 	8 byte
Analog outputs	
Number of analog outputs	4
Voltage output, short-circuit protection	Yes; per channel, electronic to chassis
Voltage output, short-circuit current, max.	50 mA
Cycle time (all channels) max.	3 ms
Output ranges, voltage	
• 0 to 10 V	Yes
• 1 V to 5 V	Yes
• -10 V to +10 V	Yes
Connection of actuators	
 for voltage output two-wire connection 	Yes
for voltage output four-wire connection	Yes
Load impedance (in rated range of output)	
 with voltage outputs, min. 	1 000 Ω
 with voltage outputs, capacitive load, max. 	1 μF
Destruction limits against externally applied voltages and current	s
 Voltages at the outputs towards MANA 	16 V; Permanent
Cable length	
• shielded, max.	30 m
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
 Resolution with overrange (bit including sign), max. 	15 bit; at -10 to +10 V; 14 bit at 1 to 5 V; 15 bit at 0 to 10 V
 Conversion time (per channel) 	0.7 ms

Settling time	
• for resistive load	0.1 ms
• for capacitive load	6 ms
Errors/accuracies	
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-)	0.02 %
Linearity error (relative to output range), (+/-)	0.1 %
Temperature error (relative to output range), (+/-)	0.01 %/K
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.05 %
Operational error limit in overall temperature range	
 Voltage, relative to output range, (+/-) 	0.2 %
Basic error limit (operational limit at 25 °C)	
 Voltage, relative to output range, (+/-) 	0.15 %
Interrupts/diagnostics/status information	
Substitute values connectable	Yes
Alarms	
Diagnostic alarm	Yes; Parameterizable
Hardware interrupt	No
Diagnoses	
 Diagnostic information readable 	Yes
Wire-break	No
Short-circuit	Yes; per channel, not in zero range
Diagnostics indication LED	
Group error SF (red)	Yes
Potential separation	
Potential separation analog outputs	
 between the channels 	No
 between the channels and backplane bus 	Yes
Isolation	
Isolation tested with	707 V DC (type test)
Dimensions	
Width	45 mm
Height	130 mm
Depth	35 mm
Weights	
Weight, approx.	150 g

last modified: 3/12/2024 **C**